

Title (en)

Internal combustion engine with an adjuster unit to vary the phase of the camshafts drive

Title (de)

Brennkraftmaschine mit einer Nockenwellen-Antriebsverstelleinheit

Title (fr)

Moteur à combustion interne avec dispositif de déphasage de l'entraînement des arbres à cames

Publication

**EP 0624717 B1 19970604 (DE)**

Application

**EP 94102216 A 19940214**

Priority

DE 4306604 A 19930303

Abstract (en)

[origin: EP0624717A1] An adjuster unit is described for two camshafts (53, 54) of an internal combustion engine, adjustable differently from one another in their phase angle relative to a crankshaft (52). In V-type engines, the said adjuster unit (55), from which endless chain or belt drives (56) lead to the camshafts (53, 54), is arranged in the V space. The adjuster unit (55) is designed as a pre-assembled unit and can be flange-mounted on the end face of the internal combustion engine housing. Advantageous design embodiments of such an adjuster unit (55) are indicated.  
<IMAGE>

IPC 1-7

**F01L 1/34**

IPC 8 full level

**F01L 1/02** (2006.01); **F01L 1/34** (2006.01); **F01L 1/344** (2006.01); **F02B 75/22** (2006.01)

CPC (source: EP)

**F01L 1/02** (2013.01); **F01L 1/022** (2013.01); **F01L 1/024** (2013.01); **F01L 1/34406** (2013.01); **F02B 75/22** (2013.01); **F01L 2001/0537** (2013.01);  
**F02B 2275/08** (2013.01); **F02B 2275/18** (2013.01)

Cited by

EP1013899A3; EP1452698A1; US6877467B2; US7434555B2; FR2898385A1; JP2007533906A; US7377243B2; GB2316446A; GB2316446B;  
US5970931A; US6367435B2; US6928971B2; WO2005103455A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0624717 A1 19941117; EP 0624717 B1 19970604**; DE 59402976 D1 19970710

DOCDB simple family (application)

**EP 94102216 A 19940214**; DE 59402976 T 19940214